The North Pickering Project

Industrial Location Patterns

[Background Paper No. 9]

December, 1974

Ministry of Housing
Ontario

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INDUSTRIAL LOCATION PATTERNS

THE LOCATION QUESTION

The industrial location question is concerned with firms locating or relocating in specific areas. The new firm locating and the old firm relocating face similar considerations. Industrial location theory attempts to incorporate the location considerations and to pinpoint (from the considerations) the main location factors. These main location factors should suggest an industrial location pattern and should explain industrial migration patterns.

In a dynamic framework industrial location patterns subsume industrial migration patterns. In a static framework industrial location patterns and industrial migration patterns are readily discerned. In effect, a broad definition of industrial migration would be the difference in industrial location patterns between two points in time.

Location patterns and migration patterns are described in this paper through the process of examining the following factors; the spatial arrangement and re-arrangement of firms and employment, the firm birth/death process, the average size of firms, the physical expansion of firms and the relocation of firms.

The answer to the industrial location question is structured in the following manner:

I LOCATION RATIONALE

LOCATION CONSIDERATIONS

The cost of production for a firm varies from place to place. The firm must locate where it can make a profit, that is, where its total revenues are greater than its total costs. The firm may attempt to maximize its profits, or maximize its revenues, or minimize its costs. The motives are not of primary importance, the firm must make a profit. The unprofitable firm will not continue to exist.

Location considerations are, perhaps, obvious. However, they should be stated because among these considerations are the main location factors. These main location factors are the considerations which the individual firm identifies as being most important in its search for a new location or its decision to remain in the present location. These main location factors will be different for different firms.

The following is a list of location considerations:

Capital reserves
Scale of operation
Land size and cost
Building size and cost
Availability of land, labour, capital*
Wages
Transportation for goods and workers
Proximity to product market
Proximity to suppliers
Government services and taxation
Location of other firms
Personal preferences
Commercial and financial facilities
Social, cultural, leisure, educational facilities

Some of these considerations i.e. increased land rent, inability to expand, traffic congestion, will "push" a firm to a new location. Some of the considerations i.e. labour market accessibility, proximity of product market, proximity to commercial and financial facilities, will "pull" a firm to remain on its present site. When the "pull" considerations are greater than the "push" considerations, the firm will remain in its present location, perhaps expanding if this is possible. When the "push" considerations are greater than the "pull" considerations the firm will move to a new location where, once again, the "pull" is greater than the "push".

PRIMARY LOCATION PRINCIPLES

Before discussing the main location factors, (See Location Reality, page 6) it will be useful to list a number of preliminary location principles and to present a conceptual framework of location theory.

The following is a list of general location principles excerpted from H. W. Richardson's Urban Economics, (1970, pp. 35-37).**

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* The availability of serviceable land and industrial buildings is a very important consideration: "...without any doubt the most powerful force influencing the location of manufacturing activity is the stock of manufacturing structures" (James and Hughes, 1973, p.405).

** All references are provided in the bibliography.

"1. "Activities serving the city market as a whole are more likely to locate centrally. Activities serving non-local markets will tend to occupy peripheral sites."

2. "The more specialized a function, the greater its tendency to occupy a central location."

3. "The larger the site area required by an establishment, the more likely it is to acquire a suburban location. This follows from the fact that the price of land tends to be inversely related to distance from the city centre."

4. "Urban location decisions are influenced by the existence of land use controls and other urban planning restrictions on the use of central land."

5. "The presence of pecuniary external diseconomies (e.g. rising site costs) or technological external diseconomies (smoke, noise, traffic congestion) induces a degree of decentralization, though the response varies depending on how much an establishment is tied to the central core."

6. "The core-suburb dichotomy in urban location decisions needs to be qualified by the fact that large cities usually contain secondary centres outside the CBD. In some cases, a site at one of the secondary centres may offer an acceptable compromise."

7. "Urban location decisions are interdependent (see (4) above). This interdependence very often shows itself in agglomeration. For instance agglomeration of similar establishments can create external economies -- the ease of face to face contacts in the office zone or the fact that locating shops together minimizes commuting costs and attracts custom."

8. "Historical forces are important in explanations of a city's location pattern. Establishments may continue to occupy central sites long after the *raison d' etre* for doing so has passed."

9. "The most general of generalizations, based on experience in advanced industrial countries, is that there is increasing locational concentration in a few large cities but a marked decentralization within these areas. If this is the case, it suggests that suburban sites on the edge of large cities offer the best of all worlds. They give easy access to the large metropolitan market and to urban amenities and an attractive environment without having to tolerate the diseconomies, congestion and high costs of central sites."

CONCEPTUAL FRAMEWORK

The general nature of the preliminary location principles and the multitude of location considerations indicate that the theoretical analysis of industrial location is not a simple matter. Clearly, many assumptions must be made in the structuring of the theory. The following conceptual framework indicates that location is determined solely by cost and revenue considerations. However, the latitude offered by this conceptual framework does leave room for non-cost and non-revenue factors, i.e. personal preference.

The firm goes into business to make a profit. The firm cannot continue to operate if it does not make a profit. Assume that the firm wishes to maximize its profit. As revenue and costs of production vary from location to location the firm will, assuming it has perfect knowledge of all locational choices available to it, seek the location which maximizes its profit. The ability to reach this "best" location is assumed. This best location "will clearly be where total revenue exceeds total cost by the greatest amount". (Smith, 1971, p.182)

The spatial variation in cost and revenue can be depicted on a space cost/revenue diagram. Variations in cost and revenue are reflected by distance. Cost and revenue in any one place are assumed constant, as is output. The vertical line measures cost/price; the horizontal line measures distance. In Diagram I (below) price is held constant while cost varies with distance. The diagram depicts the space cost curve (average cost) and the space revenue curve (price). Since output at any one place is constant, total cost and total revenue can be depicted by altering the vertical axis, i.e. total cost = average cost x output; total revenue = price x output. Minimum average cost is at point 0. Price (total revenue) equals average cost (total cost) at points M_a and M_b. The firm maximizes profits at point 0. The firm can profitably operate between M_a and M_b.

In Diagram II costs are held constant and price varies with distance. The maximum price is at point 0. Price (total revenue) equals average cost (total cost) at points M_a and M_b. The firm maximizes profits at point 0. The firm can profitably operate between M_a and M_b.

Diagram III combines Diagrams I and II. Minimum average cost is at point 0. Maximum price is at point B. Price (total revenue) equals cost (total costs) at points M_a and M_b. The firm maximizes profit at point 0. The firm can profitably operate between M_a and M_b.

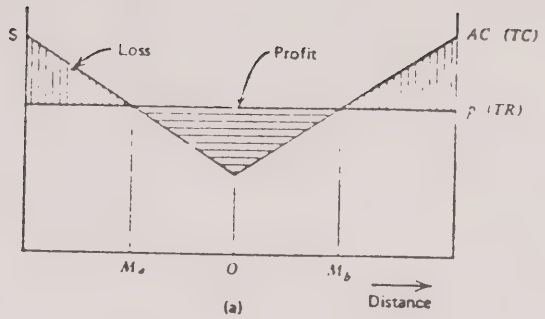

Diagram I

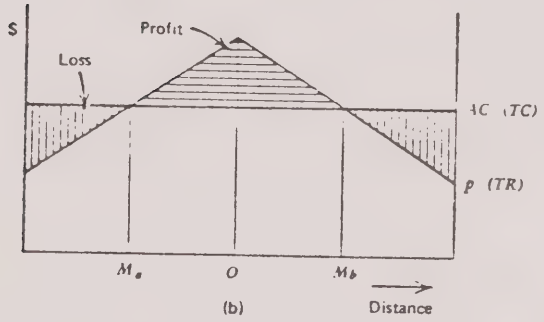

Diagram II

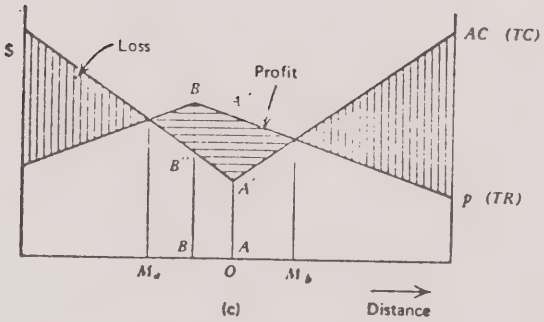

Diagram III

SOURCE: Smith, Industrial Location, 1971, p.183.

This exercise indicates that "spatial variations in total cost and total revenue create an optimum location at which profits may be maximized, and also spatial margins beyond which profitable operation is not possible; within the margin the firm is free to locate anywhere, providing profit maximization is not required". (Smith, 1971, p.185). The spatial margin provides the latitude to incorporate non-profit maximizing behaviour, i.e. personal preference, environmental maximization. Needless to say, the steeper the slopes of the revenue and cost curves, the narrower will be the spatial margin and hence the more concentrated industry will be; vice versa for dispersed industry. It is difficult to be more precise than this if the assumption of profit maximization behaviour is dropped.

LOCATION REALITY

Location theory remains idealistic. It specifies only where the profit maximizing firm will locate. Unfortunately most firms do not fit into this model.

In his Theory and Reality of Industrial Location in the Toronto Region, Gerald Hodge examined the association between the least cost rules of location theory and industrial location behaviour. The least cost factors examined were, wage rates, land costs, local taxes and transport rates. These can be considered as main location factors.

One might presume that a firm would locate where its costs were lowest. However, this presumption is not borne out by the Hodge study. Using a trend surface analysis for the location of firms and for the four location inputs (wage rates, land costs, local taxes and transport rates) Hodge came to the conclusion that, "...the case must be put that plants are as likely to locate in high wage areas as low wage areas; that plants are as likely to locate in areas with high local taxes as with low taxes. Finally, there is only a slight tendency for plants to locate only where transport costs are lowest". (Hodge, 1970, p.23) In his comparison of plant location and cost factors, Hodge also concluded that "...for attracting industry nothing succeeds like the success in already having industry" and "...where the number of plants is high the price of industrial land is also likely to be high". (Hodge, 1970, p.22)

For Hodge, industry in the Toronto Region is not locating in the least cost areas. This leads to his conclusion that it is the "extra-economic" factors (climate, cultural and recreational opportunities, quality of housing) which the firm considers most when locating in metropolitan regions.

The four least cost factors specified by Hodge within the context of his study can not be considered as main location factors. There does not appear to be a consensus on the four or five considerations which could be classified as main location factors. It is probably true that different firms have different main location factors.

The North Pickering Project is presently analyising the results of "Location and Site Requirements of Secondary Industry" questionnaire which, it is hoped, will show some consensus on main location factors.

II INDUSTRIAL MOBILITY

FOOTLOOSE INDUSTRY

Industrial firms are increasingly becoming less reliant on specific locations. As a smaller proportion of firms process bulky materials and as transportation improvements overcome distance handicaps, firms have a wider range of location choices. They are, in effect, becoming more geographically mobile or "footloose".

Luttrell has estimated that approximately two-thirds of British manufacturing industries are mobile. (Smith, 1971, p.494) Richardson in referring to the Luttrell study (1962) and to a study by Nicholson (1956) states that, "There has been considerable evidence over the last twenty years that a high proportion of industry is 'footloose', that is, capable of being located anywhere. (Perhaps about seventy percent of manufacturing industries)". (Richardson, Elements of Regional Economics, 1969, p.80)

BIRTH/DEATH RATES

The mobility of industry has obvious implications for industrial migration. As stated earlier, industrial migration refers to the birth of firms, the death of firms and the relocation of firms. Regarding firm birth rates,* Collins has shown that birth rates decline with the size of the firm. Generally, one would expect those industries with a smaller average size firm to have higher birth rates but this is not borne out for 1961-65 Ontario data. Rather, general economic conditions, financial resources, economies of scale, etc. are put forward as having more important influences on firm birth rates. Similar statements may be made regarding firm death rates. Firm death rates decline as firm size increases, but the industries with the smallest average size firms do not have the highest death rates.

Table I (below) indicates firm birth and death rates for Ontario for the period 1961-65. Machinery industries have the highest birth rate while Primary Metal industries have the lowest birth rate. Furniture and Fixtures Industries have the highest death rate while tobacco products industries have the lowest death rate. Metal Fabricating

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* Birth rate = $\frac{\text{Change in Births 1961-65 in industry A}}{\text{Total firms in industry A}}$

industries, Machinery industries and Transportation Equipment industries have the highest birth/death ratio. In terms of birth and deaths, it is the above three industries which are increasing the fastest. See page 19 for further information on new establishments.

TABLE I

Average Birth & Death Rates for Twenty 2-digit Industries, 1961-65

Industry	Birth rate	Rank	Death rate	Rank
1. Foods & beverages.....	4.78	16	6.75	3
2. Tobacco products.....	4.69	18	3.12	20
3. Rubber.....	6.35	9	5.08	12
4. Leather.....	5.93	10	4.95	13
5. Textiles.....	5.16	15	4.94	14
6. Knitting mills.....	4.70	17	6.62	4
7. Clothing.....	5.22	14	7.39	2
8. Wood.....	5.47	13	5.55	10
9. Furniture & fixtures.....	9.35	4	8.27	1
10. Paper and allied products....	5.64	11	4.13	18
11. Printing and Publishing.....	4.29	19	4.22	17
12. Primary metals.....	4.10	20	3.59	19
13. Metal fabricating.....	9.75	3	5.38	11
14. Machinery.....	11.79	1	6.60	5
15. Transportation equipment.....	10.33	2	6.27	7
16. Electrical products.....	6.76	7	4.89	15
17. Non-metallic mineral products	6.60	8	6.34	6
18. Petroleum & coal products....	5.63	12	5.63	9
19. Chemical products	6.85	6	4.37	16
20. Miscellaneous manufacturing..	8.60	5	5.81	8
All industries.....	7.0		6.1	

Source - Collins, 1972 p.72

FIRM RELOCATION

Firm relocation is caused by the "push factors" overcoming the "pull factors". (See p. 2) Push factors which enter strongly into the relocation decision are; lack of space for immediate expansion, lack of space for truck loading and parking, change in the nature of the firm's operations, high land values (offered a high price for existing site), shortage of labour (Logan, 1966, p.461).

Collins provides a spatial framework for examining patterns of relocation. It is useful to use this framework to present his relocation results.

Suburbanization is the process of firms leaving city centres to relocate in their respective suburbs. For the period 1961-65, Metal Fabricating industries, Furniture and Fixtures industries, Food and Beverage industries for Toronto and Metral Fabrication, Food and Beverage and Transport Equipment industries for other large urban areas were the leading sub-urbanization industries.

Suburban dispersion is the process of firms moving from one Toronto suburb to another. Metal Fabricating industries were the leading suburban dispersion industries.

Decentralization is the process of firms moving from Metro Toronto to other parts of Ontario. Metal Fabricating industries, Transport Equipment industries, Printing and Publishing industries and Chemical Products industries were the leading decentralization industries.

Centralization is the process of firms moving from the rest of Ontario to Metro Toronto and from the suburbs of Toronto to the City of Toronto. Metal Fabricating industries and Machinery industries were the leading centralizing industries.

Dispersion is the residual inter urban relocation which has no well defined spatial pattern. Metal Fabricating industries and Food and Beverage industries were the leading dispersion industries.

> In referring to migration patterns Collins concludes:
>
> "Recalling the alternative systems of spatial states outlined earlier in this chapter, the analyses tend to support the notion of increasing concentration in and around Metropolitan Toronto rather than that of widespread decentralization in southern Ontario. Therefore, a system of states based solely on the concept of "distance bands" radiating outwards from Toronto may not be the most appropriate. Likewise, the analyses indicate no well defined interregional character in the migration process. Clearly discernible, however, has been the tendency for plants to relocate from the city of Toronto to its suburbs and other centres; from the larger cities to their respective suburbs; and from smaller to larger urban centres". (Collins, 1972, p.100)

UNCERTAINTY

It is important to point out that many firms do not know their optimum location. The lack of specificity in the theory reflects the actual situation not the capability of the theorists. As a hedge against this uncertainty, firms tend to locate where existing firms are. (See page 6 quotation from Hodge.)

III LITERATURE REVIEW

Collin's Industrial Migration in Ontario, is not the only research on industrial location and migration in Ontario. This section will review some of the other important works in this field.

In a 1958 Canadian Geographer article, D. Kerr and J. Spelt co-authored "Manufacturing In Suburban Toronto". They concluded that; "since 1950 manufacturing in suburban Toronto has expanded greatly. Approximately two-thirds of the development may be accounted for by intra city migration. Companies coming from outside and new enterprises developing make up the remaining one-third". (Kerr, Spelt, p. 19)

In 1965, the City of Toronto Planning Board published Industrial Prospects in the City of Toronto. This study examined two industrial areas within the City of Toronto. The following is a summary of the more salient points of Industrial Prospects in the City of Toronto:

1) More than one-half of the survey areas' firms moved in between 1953 and 1962.

2) One-third of the firms moving from the Survey areas moved to the suburbs.

3) Less than one-half of the firms moving from the Survey areas moved to another downtown location.

4) The largest mover to the suburbs was the chemical industry.

In 1968, the Regional Development Branch (Treasury and Economics) released a study by N.C. Field and D. P. Kerr entitled Georgraphical Aspects of Industrial Growth in the Metropolitan Toronto Region. The following two tables summarize the concentration of manufacturing and the distribution of new manufacturing establishments in the Field-Kerr study area.

TABLE II

Concentration of Manufacturing
in the
Metropolitan Toronto Region
1932-65

	% of Employment				% of Establishments			
5-year Averages	Southern Ontario	Metro Region	York	Ontario Halton Peel	Southern Ontario	Metro Region	York	Ontario Halton Peel
1932-35	100	39.8	36.4	3.4	100	32.9	30.0	2.9
1936-40	100	38.2	34.8	3.4	100	35.4	32.6	2.8
1941-45	100	41.4	36.6	4.8	100	38.5	35.7	2.8
1946-50	100	39.2	35.2	4.0	100	40.6	37.3	3.3
1951-55	100	42.5	35.4	7.1	100	42.7	38.9	3.8
1956-60	100	44.7	36.4	8.3	100	44.0	39.3	4.7
1961-65	100	46.1	37.0	9.1	100	47.4	41.2	6.2

Source: Field, Kerr, 1968, p.14

TABLE III

Distribution of New Manufacturing Establishments
In Southern Ontario 1956-1967[a]

	Southern Ontario	Metro Region	York County	Ontario Peel & Halton	Rest of South Ontario
Number of Plants					
All plants	1,930	813	513	300	1,117
Canadian origin	1,194	419	237	182	775
U.S. origin	637	337	233	104	300
Other origin	99	57	43	14	42
% of S.Ont. Total					
All plants	100%	42	27	15	58
Canadian origin	100%	35	20	15	65
U.S. origin	100%	53	37	16	47
Other origin	100%	58	44	14	42
% of Regional Total					
All plants	100%	100%	100%	100%	100%
Canadian origin	62	52	46	60	69
U.S. origin	33	41	45	35	27
Other origin	5.1	7.1	8.4	4.7	3.7

[a] Compiled from lists of new manufacturing establishments published annually by the Ontario Department of Trade and Development (formerly the Department of Economics and Development) in the Ontario Industrial Review. The table includes both new firms and new branch plants of firms already located in Ontario. Plants in Northern Ontario (Northeast and Northwest Economic Regions) have been excluded in the compilations for this table. Plants listing Burlington as a location have not been counted as falling within the four-county Metro Region, even though the eastern part of this centre extends into Halton County.

Source: Field, Kerr, 1968, p.25.

Table II indicates that during the period 1932-65, both employment and the number of establishments have continued to concentrate in the Metro Region. The Metro Region is defined as the Counties of York, Ontario, Halton and Peel.

Table III indicates that forty-two percent of all new manufacturing establishments in Southern Ontario, between 1956-67, began operations in the Metro Region. In Southern Ontario the percentage of new manufacturing establishments of U.S. origin settling in the Metro Region is greater than the percentage of new Canadian manufacturing establishments settling in the Metro Region. However, in no area in Southern Ontario is the absolute increase in U.S. origin establishments greater than those of Canadian origin.

In 1970, the Regional Development Branch (Treasury and Economics) released a study by Gerald Hodge entitled Theory and Reality of Industrial Location in the Toronto Region. The following table summarizes the distribution of manufacturing plants in the Toronto Region in 1966.

TABLE IV

Distribution of Manufacturing Plants in the Toronto Region, 1966

Sector	Plants No.	Plants %
1. Metropolitan Core	3,162	43.2
2. Lakeshore East (Ajax to Belleville)	291	4.0
3. Lakeshore West (Mississauga to Hamilton)	1,259	17.2
4. 401 West (Guelph to London)	1,090	14.9
5. Niagara (Hamilton to Welland)	276	3.8
6. Yonge North (Metro to Barrie)	271	3.7
Sub-Total Core/Corridors	6,349	86.8
7. Remainder Region	966	13.2
TOTAL REGION	7,315	100.0

Source: Hodge, 1970, p.10

The above table indicates the aggregate pattern of industrial location in the Toronto Region. Hodge also identified six industrial groups whose location patterns differed from the aggregate pattern.

a) Food Product firms and Printing and Publishing firms are widely dispersed throughout the Region.

b) Lumber and Wood Products/Furniture firms are skewed to the north-west of Toronto, i.e. in the Kitchener-Waterloo area.

c) Leather Products firms are concentrated in centres west of Toronto.

d) Electrical Machinery firms and Miscellaneous firms are found mainly in the largest cities (Hodge, p.13)

The following table indicates the change in the distribution of manufacturing plants between 1961 and 1966. (Hodge, p.20)

TABLE V

Change in the Distribution of Manufacturing Plants in the Toronto Region, 1961 - 1966

Sector	1961 Plants		New Plants 1961-66	
	No.	%	No.	Growth Rate
1. Metropolitan Core	2,924	44.1	238	8.1
2. Lakeshore East	248	3.8	43	17.3
3. Lakeshore West	1,160	17.6	99	8.5
4. 401 West	969	14.7	121	12.5
5. Niagara	248	3.8	28	11.3
6. Yonge North	240	3.6	31	12.9
Sub-total Core/Corridors	5,789	87.6	560	9.7
7. Remainder Region	817	12.4	149	18.2
TOTAL REGION	6,606	100.0	709	10.7

In 1971, the City of Toronto Planning Board released Report on Industry: Survey of the Western Area. In this Report, industry movers and non-movers were compared:

1) Movers are smaller in employment size and floor area.

2) Movers tend to rent their premises.

3) Movers do not rely on local labour.

4) The largest movers were the wholesale and chemical industries.

Also in 1971, the City of Toronto Planning Board released Report on Industry: Survey of the Central Area. Once again industry movers and non-movers were compared:

1) The average size of movers was larger than the average size of non-movers.

2) The largest movers were the Paper, Printing and Publishing firms.

3) No other major differences were noted.

In 1972, the City of Toronto Planning Board released Report on Industry - Supplement The Northern and Eastern Area Survey. Industry movers and non-movers were compared. The results were similar to those of the Western Area Survey.

1) Movers are smaller in employment size and floor area.

2) Movers tend to rent their premises.

3) The largest movers were wholesaling firms.

In two of the last three reports (above) industry 'movers' were smaller than industry 'non-movers'.

IV INDEPENDENT RESEARCH

This section of the paper updates the previous section (Literature Review). The topics to be discussed are the distribution of manufacturing industries, the distribution of new manufacturing firms, the size of existing and new establishments, firm expansion patterns and relocation.

DISTRIBUTION OF MANUFACTURING INDUSTRIES

The change in the number of manufacturing establishments in any area is an indicator of industrial migration patterns at an aggregate level. Table VI (below) shows the change in the number of establishments between 1966 and 1970 for selected counties. The distribution as a percent of Ontario's (Province) total for 1966 and 1970 is also indicated.

TABLE VI

Number of establishments & Distribution

	1966	% Distribution	1970	% Distribution	Difference
Province Ontario	12,986	100%	12,736	100%	-250
County					
Durham	62	.4%	54	.4%	- 8
Ontario	220	1.6%	251	1.9%	+ 31
York	5,462	42.0%	5,207	40.8%	-255
Peel	391	3.0%	510	4.0%	+119
Halton	259	1.9%	289	2.2%	+ 30
Wentworth	630	4.8%	588	4.6%	-52

Source : Statistics Canada, Catalogue #31-209 for 1970 and for 1966.

Table VII (below) indicates the number of establishments with shipments of goods of own manufacture of $10 million or more, between 1966-70 for selected municipalities. The distribution as a percent of the Ontario total for all manufacturing establishments is also shown.

TABLE VII

Establishments by Municipality And Distribution as a Percent of Total Establishments in Ontario

	1966	%Distribution	1970	%Distribution	Difference
Municipality					
Metro	5,009	38.5%	4,902	38.4%	- 107
Toronto (City)	2,445	18.8%	2,106	16.5%	- 339
Scarborough	547	4.2%	680	5.3%	+ 133
North York	890	6.8%	1,026	8.0%	+ 136
Etobicoke	722	5.5%	723	5.6%	+ 1
East York	145	1.1%	137	1.0%	- 8
York	260	2.0%	230	1.8%	- 30
West					
Hamilton	506	3.8%	461	3.6%	- 45
Burlington	79	.6%	93	.7%	+ 14
Mississauga			310	2.4%	
Brampton	82	.6%	92	.7%	+ 10
North					
Aurora	19	.1%	19	.1%	0
Richmond Hill	52	.4%	59	.4%	+ 7
Newmarket	22	.1%	20	.1%	- 2
East					
Bowmanville	13	.1%	15	.1%	+ 2

Source: Statistics Canada, Catalogue #31-209 for 1970 and for 1966.

Summarizing Tables VI and VII the reader will note the following: in the Province of Ontario, there was a negative net change of 250 establishments; York county was the biggest loser while Peel gained substantially; at the Metro Toronto level, Scarborough and North York have gained establishments while Metro as a unit has lost establishments; the City of Toronto lost the most establishments.

Tables VI and VII indicate where manufacturing firms are located. Tables VIII and IX (below) show for Ontario and the Toronto Census Metropolitan Area the distribution of manufacturing industries at the two digit S.I.C. level for 1970 by number of establishments and employment, respectively.

TABLE VIII

Distribution of Establishments
by Manufacturing Industry - 1970

S.I.C.	# of Estab. Ontario	% of Ontario Total	# of Estab. Toronto CMA	% of Toronto CMA	Toronto CMA as a % of Ont.
Food & Beverage	1916	15.0	461	8.1	24.0
Tobacco	13	.1			
Rubber & Plastics	321	2.5	184	3.2	57.3
Leather	188	1.4	102	1.7	54.2
Textiles	384	3.0	180	3.1	46.8
Knitting Mills	105	.8			
Clothing	492	3.8	418	7.3	84.9
Wood	755	5.9	129	2.2	17.0
Furniture & Fixtures	898	7.0	445	7.8	49.5
Paper & Allied	283	2.2	153	2.6	54.0
Printing,Publishing	1564	12.2	852	14.9	54.4
Primary Metal	212	1.6	62	1.0	29.2
Metal Fabricating	2118	16.6	998	17.5	47.1
Machinery	507	3.9	219	3.8	43.1
Transportation Equip.	363	2.8	111	1.9	30.5
Electrical Products	453	3.5	262	4.6	57.8
Non-Metallic Mineral	529	4.1	129	2.2	24.3
Petroleum & Coal	28	.2	19	.3	67.8
Chemical	573	4.4	300	5.2	52.3
Misc Ind.	1034	8.1	603	10.6	58.3
Other			57	1.	
ONTARIO TOTAL	12736	100%	5684	100%	

Source: Statistics Canada, Catalogue #31-209 for 1970.

The Ontario Total for 1972 was 12,586 establishments.

It will be noted that the Toronto C.M.A. has more than fifty percent of the establishments in Ontario of the following industries: Rubber and Plastic, Leather, Paper and Allied, Printing and Publishing, Electrical Products, Petroleum and Coal, Chemicals and Miscellaneous. 84.9% of the establishments in the Clothing industry are in the Toronto C.M.A. In terms of number of establishments in Ontario, Metal Fabricating, Food and Beverages and Printing and Publishing are at the top of the list. In terms of number of establishments in the Toronto C.M.A., Metal Fabricating, Printing and Publishing and Miscellaneous Industries are at the top of the list.

TABLE IX

Distribution of Employment
By Manufacturing Industry
1970

S.I.C.	Manu. Empt. in Ontario	% of Ont. Total	Manu. Empt. in Toronto C.M.A.	% of Toronto C.M.A.	Toronto C.M.A. as a % of Ontario
Food & Beverage	84,700	10.5	29,534	10.0	34.8
Tobacco	3,661	.4			
Rubber & Plastics	29,514	3.6	10,498	3.5	35.5
Leather	12,768	1.5	4,248	1.4	33.2
Textiles	28,499	3.5	6,834	2.3	23.9
Knitting Mills	7,355	.9			
Clothing	23,498	2.9	15,839	5.3	67.4
Wood	16,664	2.0	2,874	.9	17.2
Furniture & Fixture	19,933	2.4	9,626	3.2	48.2
Paper & Allied	44,894	5.5	15,724	5.3	35.0
Printing, Publishing	43,495	5.3	27,043	9.1	62.1
Primary Metal	71,596	8.8	5,613	1.9	7.8
Metal Fabricating	81,595	10.1	34,918	11.8	42.7
Machinery	54,929	6.8	20,043	6.8	36.4
Transportation Equip.	92,339	11.4	27,087	9.2	29.3
Electrical Products	78,984	9.7	30,766	10.4	38.9
Non-Metallic Mineral	25,423	3.1	7,555	2.5	29.7
Petroleum & Coal	8,561	1.0	1,505	.5	17.5
Chemical	42,551	5.2	17,902	6.0	42.0
Misc. Ind.	35,879	4.4	22,818	7.7	63.5
Other			3,713	1.2	
TOTAL	806,638	100%	294,140	100%	

Source: Statistics Canada, Catalogue #31-209, for 1970.

It will be noted that the Toronto C.M.A. has more than fifty percent of the employment in Ontario of the following industries: Clothing, Printing and Publishing and Miscellaneous. In terms of employment in Ontario, Transportation Equipment, Food and Beverage and Metal Fabricating are at the top of the list. In terms of employment in the Toronto C.M.A., Metal Fabricating, Electrical Products and Food and Beverages are at the top of the list.

A comparison of the gains and losses by the twenty industry classification is not possible at this time. Although compensation for boundary changes can be made, compensation for the changes in the reporting of establishments for some industry classifications can not be made at this time. It is possible to say, however, that in Ontario the fastest growing industries by establishments between 1966-70 are; Metal Fabricating industries, Printing, Publishing industries and Machinery industries. Food and beverages lost the most establishments during the 1966-70 period. However, between 1970-72, Metal Fabricating has fallen off slightly while Printing and Publishing, Machinery and Transportation Equipment industries have continued to grow.

In terms of absolute employment growth between 1966-70, Machinery, Chemicals and Primary Metal industries have grown the fastest, while Food and Beverages, Transportation Equipment and Electrical Products industries have decreased the most.

DISTRIBUTION OF NEW MANUFACTURING FIRMS

In an attempt to gauge the location of new manufacturing firms in Ontario, a quick review of Statistics Canada's New Manufacturing Establishments in Canada (31-002) for the years 1971-73 was undertaken. Four sectors were identified from the firm addresses:

Metro Toronto

West of Metro Toronto
- Hamilton
- Burlington
- Oakville
- Mississauga
- Brampton
- Malton

North of Metro Toronto
- Aurora
- Richmond Hill
- Newmarket

East of Metro Toronto
- Oshawa
- Whitby
- Ajax
- Pickering

The results are presented in Table X. As indicated in Table X, Metro Toronto dominates as a location for new manufacturing firms.

TABLE X

New Manufacturing Establishments

New Establishments	Metro Toronto	West of Metro Toronto	North of Metro Toronto	East of Metro Toronto	Area Total
1971 Absolute	296	60	3	19	378
% of Total	78.3%	15.9%	.8%	5.0%	100%
1972 Absolute	318	79	11	15	423
% of Total	75.2%	18.7%	2.6%	3.5%	100%
1973 Absolute	268	69	10	12	359
% of Total	74.7%	19.2%	2.8%	3.3%	100%

Source: Statistics Canada, Catalogue #31-002 for 1971, 1972, 1973.

The tendency for firms in the eastern part of the City of Toronto to move east (Scarborough) and for firms in the western part of the City of Toronto to move west has been noted in an earlier study (Urban Systems Analysis: A Literature Review). If this tendency is accurate and continues then the location of new establishments in Etobicoke and Scarborough will have significance for North Pickering.

Table XI (below) indicates that new manufacturing establishments in the Food and Beverage industries, the Printing and Publishing industries, Metal Fabricating industries and Chemical industries are widely dispersed. New Electrical Products and Machinery and Paper and Allied establishments appear to prefer North York and Scarborough locations while new Transportation Equipment establishments appear to prefer a Mississauga location. North York and Scarborough dominate as new locations for the Furniture and Fixtures industries.

TABLE XI

New Manufacturing Establishments
In Selected Centres 1971 - 73

S.I.C.	Mississauga			Etobicoke			North York			Scarborough		
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
Food & Beverages	2	4	1	2	2	0	3	3	2	3	2	1
Tobacco Products	0	0	2	0	0	1	0	0	1	0	0	1
Rubber & Plastics	3	1	0	1	2	0	1	2	0	5	5	0
Leather	0	0	0	0	0	0	0	0	0	1	1	0
Textiles	0	0	2	0	0	0	1	0	0	0	1	1
Knitting Mills	1	0	0	0	0	0	1	0	0	0	0	0
Clothing	0	0	0	0	0	0	1	2	4	1	1	0
Wood	0	0	0	1	1	1	2	5	3	3	1	1
Furniture & Fixtures	2	2	1	1	0	0	5	8	9	7	3	9
Paper & Allied	[illegible]	0	0	1	0	0	0	2	1	2	1	1
Printing, Publishing	5	4	6	1	2	3	4	6	9	10	7	12
Primary Metals	0	0	0	0	0	0	1	2	1	1	0	0
Metal Fabricating	2	6	7	2	1	0	5	7	8	12	14	7
Machchinery Industry	0	2	0	0	1	1	5	2	2	1	4	1
Transportation Equipment	3	2	1	0	0	2	1	0	0	0	1	3
Electrical Products	1	0	0	0	1	0	2	4	2	4	2	3
Non-Metallic Minerals	0	0	3	0	1	0	0	0	2	0	0	1
Petroleum & Coal	0	0	0	0	0	0	0	0	0	0	0	0
Chemicals	2	4	4	1	0	1	2	2	2	2	2	0
Miscellaneous	[illegible]	0	0	3	4	2	7	11	4	8	2	3
TOTALS	24	25	27	13	15	11	41	56	50	60	47	44

Source: Statistics Canada, Catalogue #31-002
for 1971, 1972, 1973.
Note identified by firm address.

Table XII (below) indicates the number of new manufacturing establishments in Ontario between 1962-71 by the "twenty industry" classification.

The reader will note the large number of new establishments in Metal Fabricating industries as well as the small number of new establishments in the Tobacco Products industries and the Petroleum and Coal Products industries.

TABLE XII

New Manufacturing Establishments, 1962-71

Ontario

By Industry and Year of Commencement

Industry	Year of commencement										
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	Total
Food and beverage industries	45	77	46	47	31	19	22	24	45	36	392
Tobacco products industries	–	1	–	1	–	–	–	–	–	–	2
Rubber and plastics products industries	14	29	32	26	15	21	21	22	25	38	243
Leather industries	7	10	8	4	4	5	3	8	7	9	65
Textile industries	9	17	11	19	10	6	12	13	12	8	117
Knitting mills	4	3	4	6	4	3	–	1	4	3	32
Clothing industries	20	18	11	19	19	3	18	16	23	27	174
Wood industries	75	54	53	28	25	30	32	41	44	46	428
Furniture and fixture industries	43	46	52	32	30	29	38	31	43	37	381
Paper and allied industries	3	7	9	7	6	6	8	5	8	7	66
Printing, publishing and allied industries	47	48	41	53	37	38	62	86	87	72	571
Primary metal industries	5	11	2	6	9	5	9	15	13	9	84
Metal fabricating industries	73	123	131	123	102	98	92	105	95	75	1,017
Machinery industries	22	48	20	25	26	16	21	31	34	16	259
Transportation equipment industries	25	13	19	22	15	11	29	37	32	28	231
Electrical products industries	11	22	23	15	19	11	15	20	23	19	178
Non-metallic mineral products industries	18	27	20	10	11	11	16	20	27	13	173
Petroleum and coal products industries	–	–	1	1	–	–	–	1	2	–	5
Chemical and chemical products industries	22	29	33	15	17	15	23	17	18	17	206
Miscellaneous manufacturing industries	39	49	43	43	33	37	40	54	45	63	446
Totals	482	632	559	502	413	364	461	547	587	523	5,070

Source: Statistics Canada, Catalogue #31-002, June, 1972, p.9.

Size of Establishment

This section on establishment size is included to further characterize existing and new establishments.

Existing Establishments by Employment Size, 1966, 1970

	1966	1970
Ontario		
-4	3,769	3,524
5-14	3,500	3,400
15-49	2,964	3,043
50-99	1,195	1,177
100-199	782	817
200-499	536	546
500-999	153	148
1000-1499	41	36
1500-	46	45
Total	12,986	12,736
Toronto		
-4	735	633
5-14	657	596
15-49	627	525
50-99	207	169
100-199	107	97
200-499	66	63
500-999	22	15
1000- +	10	8
Total	2,431*	2,106
Hamilton		
-4	132	120
5-14	139	128
15-49	104	105
50-99	46	29
100-199	32	30
200-499	37	28
500-999	16 (500+)	13
1000-1499		4
1500- +		4
Total	506	461

Sources: Statistics Canada, Catalogue #31-209, and 31-210.

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* Does not include 14 establishments in Swansea.

In each case over one half of the total establishments have less than fourteen employees.

TABLE XIII

New Manufacturing Establishments by Industry and Employment Size Between 1962-71 for Ontario by Industry and Employment Size Group

Industry	Employment size group							
	Under 5 Employees	5-14 Employees	15-19 Employees	20-29 Employees	30-49 Employees	50-99 Employees	100 Employees and over	Total
Food and beverage industries	234	94	20	17	11	9	7	392
Tobacco products industries	1	–	–	–	1	–	–	2
Rubber and plastics products industries	108	92	16	11	10	5	1	243
Leather industries	29	18	8	4	3	1	2	65
Textile industries	50	37	9	6	4	5	6	117
Knitting mills	11	9	2	1	2	5	2	32
Clothing industries	62	57	18	19	9	5	4	174
Wood industries	224	133	25	17	15	9	5	428
Furniture and fixture industries	260	99	11	5	2	3	1	381
Paper and allied industries	29	25	3	2	1	4	2	66
Printing, publishing and allied industries	408	122	18	8	10	4	1	571
Primary metal industries	29	35	6	6	4	2	2	84
Metal fabricating industries	599	299	48	28	23	15	5	1,017
Machinery industries	103	97	17	18	14	7	3	259
Transportation equipment industries	77	81	17	12	17	14	13	231
Electrical products industries	62	73	13	10	9	3	8	178
Non-metallic mineral products industries	83	59	11	6	5	5	4	173
Petroleum and coal products industries	2	2	–	–	1	–	–	5
Chemical and chemical products industries	94	76	9	16	4	6	1	206
Miscellaneous manufacturing industries	270	121	15	18	12	7	3	446
Totals	2,735	1,529	266	204	157	109	60	5,070

Source: Statistics Canada, Catalogue #31-002, June, 1972.

Over half of all new establishments by industry category have less than fourteen employees.

Average Size

The average size of manufacturing establishments has gradually increased over the last forty years. The following table indicates the trend in average size of manufacturing establishments over the period 1932-65.

TABLE XIV

Trends in the Average Size of Manufacturing Establishments 1932-65

	Employees per Establishment				
5-Year Averages	SOUTHERN ONTARIO	METRO REGION			REST OF SOUTHERN ONTARIO
		York	Ontario, Peel & Halton	Total	
1932-35	26	31	30	31	23
1936-40	33	40	35	40	31
1941-45	50	52	87	55	48
1946-50	45	42	57	44	46
1951-55	47	43	88	47	47
1956-60	47	43	83	47	46
1961-65	53	47	78	51	55
1965	60	49	84	54	66
1965 as a % of 1932-35	235	160	280	175	285

Source: Field, Kerr, Georgraphical Aspects of Industrial Growth in the Metropolitan Toronto Region, 1968, p.22.

Between 1966 and 1970 the average size of manufacturing establishments in Ontario has increased slightly from 63.1 to 63.3. The average size of manufacturing establishments in the Toronto C.M.A. in 1970 was 51.7.

In 1970, in Ontario the average size of manufacturing establishments by industry ranged from a low of 22.0 and 22.1 for Wood Products and Furniture and Fixture industries, respectively, to a high of 337.7 and 305.7 for Primary Metal and Petroleum and Coal industries, respectively. On the other hand, in the Toronto C.M.A. the average size of manufacturing establishments by industry ranged from a low of 21.6 and 22.2 for Furniture and Fixtures and Wood Products industries, respectively, to a high of 244.0 and 117.4 for Transportation Equipment and Electrical Products industries respectively. See Table XV (below).

TABLE XV

Average Size for Manufacturing Establishments by Industry, 1970

INDUSTRY	ONTARIO	TORONTO C.M.A.
Food & Beverage	44.2	64.0
Tobacco	266.2	
Rubber & Plastics	91.9	57.0
Leather	67.9	41.6
Textiles	74.2	37.9
Knitting Mills	70.0	
Clothing	47.7	37.8
Wood	22.0	22.2
Furniture & Fixture	22.1	21.6
Paper	158.6	102.7
Printing & Publishing	27.8	31.7
Primary Metal	337.7	90.5
Metal Fabricating	38.5	34.9
Machinery	108.3	91.5
Transportation Equipment	254.3	244.0
Electrical Products	174.3	117.4
Non-Metallic Mineral	48.0	58.5
Petroleum & Coal	305.7	79.2
Chemical	74.2	59.6
Miscellaneous	34.6	37.8

Computed from Tables VIII and IX

In comparison to the average size of existing manufacturing establishments, the average size of new manufacturing establishments is significantly smaller, as has already been indicated.

Expansion

Many firms, rather than relocating when they need more space, simply expand their facilities. The following information obtained from the Ministry of Industry and Tourism "Industrial Survey" indicates the magnitude of the expansion factor.

TABLE XVI INDUSTRIAL SURVEY INFORMATION

Place	1972 No. of Plants Est.	1972 No. of Plants Exp.	1972 No. of Plants Clos.	1968/72 No. of Plants Est.	1968/72 No. of Plants Exp.	1968/72 No. of Plants Clos.
East						
Oshawa	0	0	0	0	0	0
Whitby	9	4	1	23	19	5
Ajax	9	2	3	16	24	6
Pickering Twp.	1	0	0	11	1	2
North						
Whitchurch/ Stouffville	2	1	0	7	3	0
Aurora	0	2	0	2	6	0
West						
Bramalea	12	N/A	0	54	N/A	0
Mississauga*	110	189	10	378	387	-
Streetsville	0	0	1	3	1	1
Georgetown	4	8	2	N/A	0	0
Hamilton	8	15	14	42	137	0

* Does not compare to Statistics Canada Catalogue # 31-002, 1972.

Source: Industrial Survey 1973
Ministry of Industry & Tourism

TABLE XVII INDUSTRIAL EXPANSIONS 1973

Expansion by Sector	Expansions by Municipality
North - 5	Aurora
	Richmond Hill - 1
	Newmarket
	Markham - 4
East - 11	Oshawa
	Whitby - 4
	Ajax - 4
	Pickering - 3
Metro - 55	Toronto - 11
	Scarborough - 11
	Etobicoke - 16
	York - 5
	East York - 3
	North York - 9
West - 33	Brampton - 2
	Bramalea - 11
	Mississauga - 11
	Oakville - 2
	Hamilton - 7
	Malton
	Burlington

Total Expansions Reported = 293

Source: Ontario Review, Ministry of Industry and Tourism, July, 1974, pp.69-70

RELOCATING FIRMS

A short study of firms relocating in the Metro Toronto Region was also undertaken. Scott's Industrial Directory Ontario section for 1968 and 1972 served as source documents. The tactic was to trace firms listed in one urban centre in 1968 but not located in the same centre in 1972. Results for Toronto, Rexdale, and Scarborough are presented.

TORONTO

Between 1968-1972, fifty-one establishments were identified as migrating from Toronto. Thirty of these establishments went to Mississauga. Three went east of Metro. Thirty-three increase in employment. The average size of the relocating firms in 1972 was sixty-five employees.

REXDALE

Between 1968-72, eight establishments were identified as migrating from Rexdale (part of Etobicoke). Five of these establishments relocated in Mississauga. Six increased in employment. The average size of relocating firms in 1972 was one-hundred and five employees.

SCARBOROUGH

Between 1968-1972, six establishments were identified as migrating from Scarborough. Five of these establishments relocated to the east and north of Metro Toronto. Three increased in employment. The average size of relocating firms in 1972 was forty-two employees.

Establishments relocating within Metro Toronto were not identified.

FOREIGN FIRMS

Between 1962-71, new manufacturing firms with foreign affiliation or control represented less than six percent of all new manufacturing firms locating in Canada. In Ontario new manufacturing firms with foreign affiliation or control represented less than ten percent of new manufacturing firms. (Source 31-002, New Manufacturing Establishments in Canada, June 1972.)

From the Scott's Survey, sixty-nine branch plants locating outside of Metro Toronto were identified. Seventeen of these located in Mississauga. The employment of the sixty-nine branch plants ranged from twenty to three hundred and ninety-three. The average employment of the Mississauga branch plants was three hundred and fifteen employees.

V SUMMARY OF MAJOR POINTS

LOCATION RATIONALE

1. There are a number of location considerations.

2. Preliminary locations principles are identified.

3. A location framework is reviewed which provides for all location considerations.

4. Least cost considerations are not main location factors.

5. Manufacturing questionnaire is being analysed.

INDUSTRIAL MOBILITY

1. The majority of manufacturing industries are footloose.

2. Firm birth/death rates indicate that Metal Fabricating, Machinery and Transportation Equipment industries are growing the fastest.

3. Relocation patterns indicate that Metal Fabricating and Food and Beverage industries are the leading "movers".

LITERATURE REVIEW

1. Employment and establishments have concentrated in the Metro Region.

2. Six industrial groups' location patterns are identified.

INDEPENDENT RESEARCH

1. Establishment and employment distribution by manufacturing industry for 1970 is presented.

2. The average size of manufacturing establishments has levelled off in the period 1966-70.

3. Primary Metal Industries in Ontario and Transportation Equipment industries in the Toronto CMA had the largest average employment in 1970. Wood industries in Ontario and Furniture and Fixture industries in the Toronto CMA had the lowest average employment in 1970.

4. Most new manufacturing establishments settling in the region begin operations in Metro Toronto.

5. Between 1962-71, Metal Fabricating industries had the greatest number of new establishments while Tobacco and Petroleum and Coal industries had the least.

6. Most new firms have less than fourteen employees.

7. Tentative findings indicate that firms in the western part of Toronto prefer to migrate west while firms in

the eastern part of Toronto prefer to migrate east.

8. In order of magnitude it would appear that new establishments are quantitatively greater than firm expansions which are quantitatively greater than firm relocations.

VI CONCLUSION

This paper has not identified main location factors nor has it explained location patterns. Rather, location considerations have been offered and location patterns have been described.

The conclusion will identify the types of manufacturing establishments that could be classified as most probable for North Pickering, based on the data in this paper.

Within the Toronto CMA, Metal Fabricating and Printing and Publishing industries have the largest number of establishments while Metal Fabricating, Electrical Products and Food and Beverage industries have the largest employment. Except for Electrical Projects industries, which concentrate in large centres, each of the above industries has been identified as industries which tend to relocate. All of these industries can be considered as prime prospects for North Pickering.

VII IMPLICATIONS

Metropolitan Toronto and its immediate environment are vibrant and attractive industrial areas. New establishment location patterns, establishment expansion patterns and establishment relocation patterns reflect the market forces which have caused continued industrial growth in this area. However, this industrial growth is not evenly distributed.

The City of Toronto is losing industrial firms while Mississauga, North York and Scarborough are attracting industrial firms. Within Metro Toronto there is a redistribution of firms, mainly to North York and Scarborough. Outside of Metro Toronto, Mississauga, to the west, is experiencing strong growth in industrial firms.

History, transportation and water and sewer services favour industrial growth to the west of Metro Toronto. At the moment there is no such opportunity for large scale industrial growth to the east of Metro Toronto. Growth to the east of Metro is further hampered by the intervening opportunities (strong competition) of North York and Scarborough.

A firm's location within Toronto appears to influence its direction of relocation. Firms presently relocating to North York and Scarobough presumably, would consider a location further to the north east if the opportunity existed. Similarly, new establishments presently locating in North York and Scarborough would consider a location further to the north east if the opportunity existed.

Based on the data contained in this paper, Mississauga, North York and Scarborough are the most attractive industrial areas in the Metro Toronto area. This situation will not change over the next few years. However by the end of this decade North York will be approaching a "filled up" position thus leaving Mississauga and Scarborough as the prime attractive industrial areas in the Metro Toronto area.

This concept of 'competition' must be placed in the perspective of the demand for serviced industrial land in the Metro Toronto area. Between the years 1958 and 1972, more than 1100 acres of serviced industrial land per annum were consumed. Between the years 1968 to 1972, this figure rose to more than 1200 acres per annum (Metro Toronto Industrial Commission 1972). "The problem this year (1974) will be our ability to meet the insatiable demand for industrial lands. Serviced industrial sites are absorbed as quickly as they come on the market." (A.E. LePage 1974) Present conceptual plans indicate that the amount of industrial land available on the North Pickering site will lie in the range 1100-1700 acres. It is therefore more appropriate to speak of Mississauga, Scarborough and North Pickering as being alternate opportunities for industry rather than competitors because, if the present trend continues, the demand for serviced industrial land will exceed their combined supply.

North Pickering will be an attractive alternate opportunity as an industrial area when it can offer serviced or easily serviceable industrial land. Given that the industrial land is serviced, the larger the amount, the more of an opportunity North Pickering will be. Finally the timing is important. A large amount of available, serviced industrial land in North Pickering would be attractive. A large amount of available, serviced industrial land would become more attractive as the available industrial land in Scarborough and Mississauga dwindles.

At the same time, if North Pickering is to meet its planning objectives of matching the number of jobs on its site with the size of its resident labour force and encouraging at least 50% of its resident labour force to also work in North Pickering, then serviced industrial land and housing must be made available simultaneously. The simultaneous provision of matching job and housing opportunities in North Pickering may further enhance its attractiveness as an alternate industrial opportunity.

In addition, North Pickering has the potential advantage of any new town, good and prestigeous planning.

In summary, North Pickering finds itself in proximity to Metropolitan Toronto, with a potential supply of industrial land no greater than two years demand for the Toronto region, according to present trends, with the region facing a demand for available, serviced industrial land likely to be equal to if not greater than its supply; necessitated by its objectives to match housing and job opportunities; and with the planning potential of building an attractive and prestigeous town. Its ability to successfully market its available, serviced industrial land can hardly be questioned.

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Ontario

Ministry of
Housing
Hon. Donald R. Irvine, *Minister*
R. M. Warren, *Deputy Minister*